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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,991	01/05/2001	James E. Flowers	CSAY-0020	4733

7590

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EXAMINER

CUEVAS, PEDRO J

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 07/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

09/755,991

Applicant(s)

FLOWERS, JAMES E.

Examiner

Pedro J. Cuevas

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 April 2002.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 and 15-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 15-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 12 April 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments with respect to claims 1-7 and 15-21 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-7 and 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,939,817 to Takado in view of U.S. Patent No. 5,786,738 to Itaka et al., and further in view of U.S. Patent No. 5,923,459 to Filipov et al.

Takado discloses a module, comprising a hermetically-sealable shell (20) having first and second terminal sets (35a), and a lid (21) coupled to said shell and forming an enclosure a SAW circuit.

However, it fails to disclose a module having a first surface acoustic wave (SAW) circuit, located within said shell and couplable to said first terminal set, that filters signals in a first band of communications frequencies; and

a second SAW circuit, located within said shell and couplable to said second terminal set, that filters signals in a second band of communications frequencies.

Itaka et al. teaches the construction of a duplexer having:

a first surface acoustic wave (SAW) circuit (33a), located within said shell and couplable to said first terminal set; and

a second SAW circuit (33b), located within said shell and couplable to said second terminal set, for the purpose of providing a multi-layer ceramic package with filter chips having different central frequencies.

Filipov et al. teaches the construction of a acusto-optic time-integrating correlator having a SAW device (18) with two transducers (19 and 20) that filters a first signal (21) in a first band of communications frequencies and a second signal (22) in a second band of communications frequencies.

It would have been obvious to one skilled in the art at the time the invention was made to use the transducers disclosed by Filipov et al. with the duplexer arrangement disclosed by Itaka et al. on the module disclosed by Takado for the purpose of providing a multi-layer ceramic package with filter chips filtering two different signals, and having different central frequencies.

4. With regards to claims 2 and 16, Itaka et al. discloses a module wherein said first band of communications frequencies comprises a frequency between 800 and 900 megahertz as stated in column 5, lines 50-53.

5. With regards to claims 4 and 18, Itaka et al. discloses a module wherein said shell comprises a common base that supports said first and second SAW circuits as shown in Figure 10.

6. With regards to claims 5 and 19, Takado discloses a module comprising a lid (21) coupled to said shell to form a hermetic enclosure (as clearly stated in the abstract) that surrounds said first and second SAW circuits.

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7. With regards to claims 6 and 20, Itaka et al. discloses a module wherein said first and second SAW circuits are located on a common piezoelectric substrate (62<sub>3</sub>) as shown in Figure 10.

8. With regards to claims 7 and 21, Itaka et al. discloses a module comprising a crosstalk shield (62<sub>2</sub>) located between said first and second SAW circuits as shown in Figure 17.

9. With regards to claims 3 and 17, it would have been obvious to one having ordinary skill in the art at the time the invention was made to design a SAW circuit having a frequency operating range between 1800 and 1900 megahertz as the second SAW circuit of the claimed invention, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

#### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (703) 308-4904. The examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Néstor R. Ramírez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Pedro J. Cuevas  
July 9, 2002



NESTOR RAMIREZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800